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Montana. Parks
Division
Placid Lake
State Recreation
Area

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PLACID LAKE STATE RECREATION AREA:

DRAFT ENVIRONMENTAL STATEMENT AND DEVELOPMENT PLAN

Montana Department of Fish and Game,
Parks Division

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Placid Lake State Recreation Area draft



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I. DESCRIPTION OF THE PROPOSED ACTION

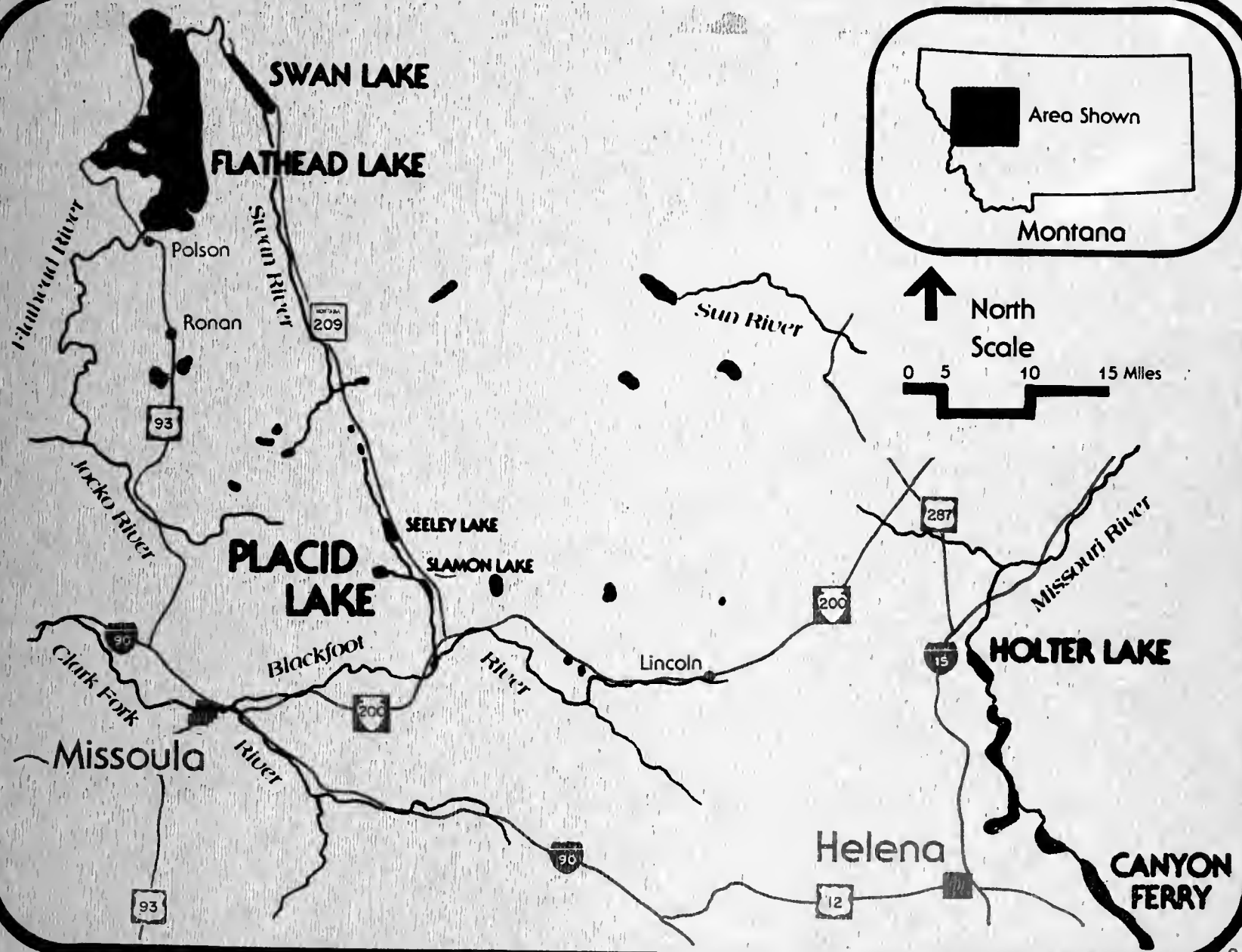
A. A Summary

Over the past several years the Department of Fish and Game has been negotiating with the Champion Timberlands Division of Champion International Corporation for the acquisition by donation of two tracts of property contiguous to Placid lake. This lake is located in the Clearwater Valley about 30 miles NE of Missoula in Eastern Nissole County. When negotiations were satisfactory the Department requested authority from the 1977 Legislature to spend Land and Water Conservation Fund (LWCF) matching money. This authority was granted. The value of the land donation will be matched with LWCF monies in order to fund the proposed development.

This EIS addresses the probable effects the acquisition and development will have upon the existing environment.

Construction is scheduled to begin in late 1978.







ENTRY AREA

B. The Setting

Placid is a glacial lake in the Clearwater Valley, near the Clearwater chain of lakes, a group which includes Seelie, Salmon, and Inez. It lies about four miles southwest of Seelie, the same distance northwest of Salmon, and three miles west of State Highway 209. Much of the surrounding country is forested, fairly moist--for Montana at least--and about 4000 to 4500 feet above sea level. Land adjacent to Placid Lake is owned by the Lolo National Forest, Clearwater State Forest, timber companies, and some private holdings by recreationists and ranchers.

The 1185-acre lake is fed by Placid Creek from the west and drained by Owl Creek, a Clearwater tributary. Champion owns about half of the shoreline and leases cabin sites around the lake. Cabin sites are also leased to private parties by the State Forestry Division on their lands.

Placid Lake is an intensively used and popular recreation area according to the Missoula County Comprehensive Plan. Recreationists presently obtain access to the lake over the property Champion International has agreed to donate to the Department. Other Champion International property which is presently being used by the recreating public includes areas at Owl Creek, Salmon Lake, and at several small lakes within the boundaries of the Lolo National Forest.

The U.S. Forest Service offers three public campgrounds and boat launches at Seelie Lake. The Department of Fish and Game has a small campground at Harper Lake Fishing Access north of Clearwater Junction.

C. The Donation

Champion's Placid donation consists of two east shore parcels: a 1.5-acre tract at the northeast end of the lake, and a 30-acre tract at the southeast boundary of the lake. The larger tract includes some fairly level ground east of the lakeshore road and several acres southwest of Owl Creek, an area which will not be developed.

The smaller parcel lies between the Placid Creek road and the lake. The larger lies on both sides of the present cabin site road near the southern shore. Both tracts are forested, have cabin sites adjacent, and are used intensively by the public. Neither tract presently has any developed facilities except for pit latrines.

* For details on public recreation in the area--including more on local, state, and federal facilities and plans see pages 20-24.

Clearwater Drainage

Legend

* Proposed Campsite

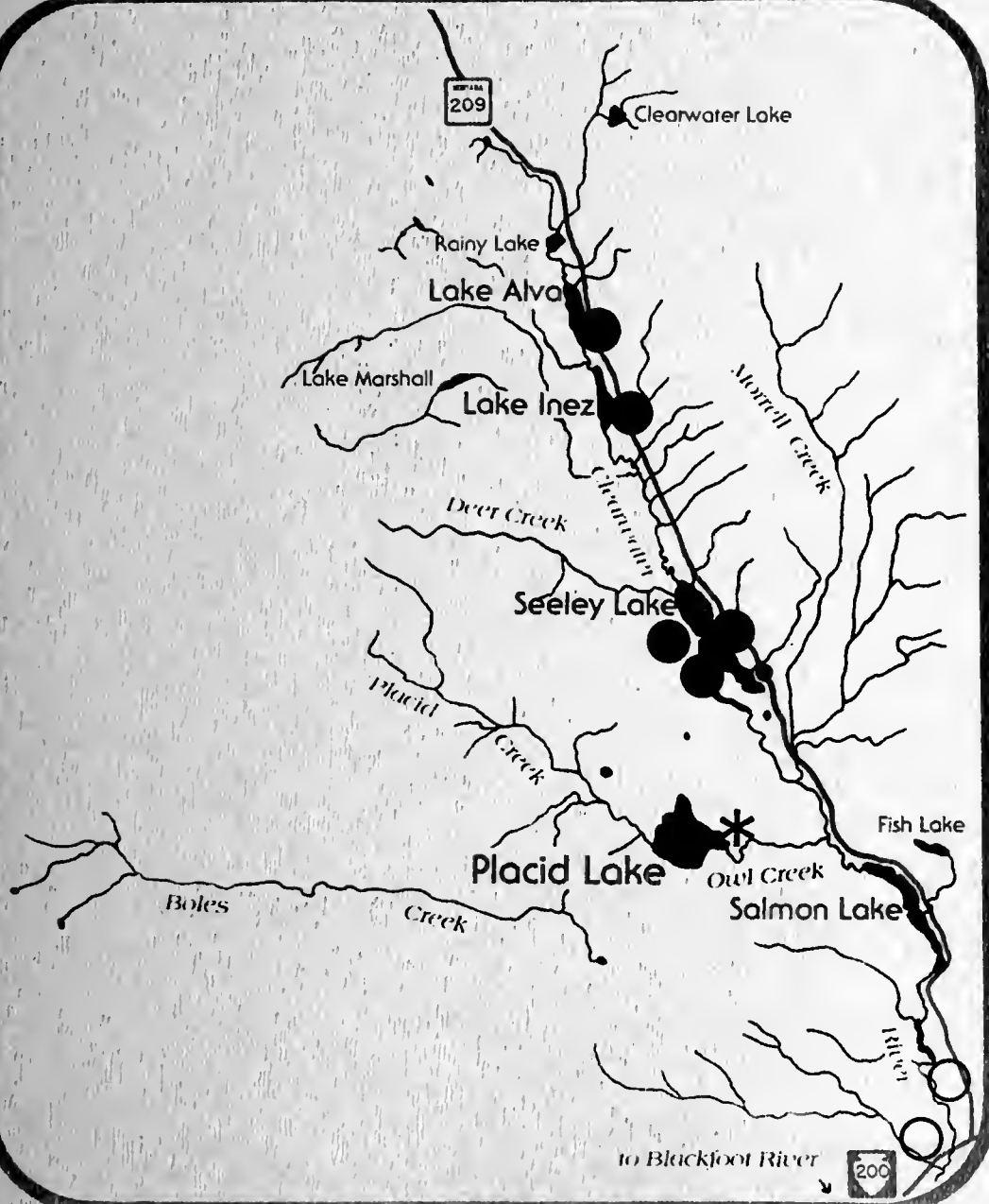
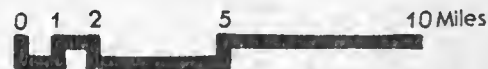
● Existing Campsite

○ Fishing Access

— Road

↑ North

Bar Scale



D. Proposed Development Plan

1. Placid Lake Recreation Area (Southeast Area)

- a. Lockable entrance gate
- b. Area orientation
- c. 3 loops with camping stalls
- d. Boat trailer parking
- e. Day-use area
- f. Boat ramp
- g. Modern comfort station
- h. Administrative area
- i. Electrical, sewer, and water systems
- j. Shelters
- k. Courtesy docks
- l. Latrines
- m. Site facilities (tables, garbage cans, etc.)
- n. Directional signing
- o. Interpretive signing

2. Day-use Area (at Northeast end of Lake)

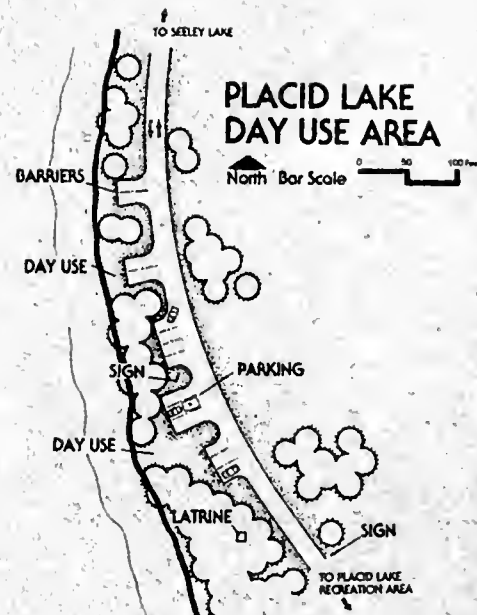
- a. Day-use parking
- b. Signing
- c. Latrine
- d. Site facilities (tables, garbage cans, etc.)

3. Construction methods and design considerations

a. Entrance gate: The design concepts for this facility have not been fully formulated. However, it is intended to consist of a metal gate with probably a wood and rock structure on either side of the entrance. Some landscape mounds could also be incorporated. The area where the entrance is to be located is not heavily timbered. No trees will be removed.

b. Area orientation: This will consist of a pull-off from the main road and a map sign to orient people to the location of facilities within the site. The day-use area will also be shown on this map. The interpretive signing will also be installed in this vicinity. They will consist of anodized aluminum signs mounted on metal posts. The sign colors will be black and gold. Footpaths and minor landscape modification will be required.

c. Roadwork: Roads will be designed to maintain cross-slope drainage wherever practical. In some areas drainage structures will be required. The roads will be constructed with a gravel base and asphalt surfacing. Cuts and fills will be kept to a minimum. The most significant cut and fill will occur at the southern end of the south camp loop. Here a cross slope of approximately 20% will be traversed at an 8% to 10% grade. It is not presently visualized that any cuts or fills exceeding three feet will be necessary. The new road system is designed to take advantage of existing road scars wherever possible. The easternmost camp loop and the boat trailer parking are located in areas not previously disturbed, however. Parking spots will be located to lie within existing openings in the tree cover. Backslopes and disturbed areas will be reseeded with native grasses. The new areas to be disturbed will consist of approximately 1.5 acres.





BOAT LAUNCHING

d. Boat ramp: This facility will be constructed from concrete with footings along all edges. Below the water line precast concrete planks will be used to avoid disturbing the lake bottom. The ramp will be located at the area presently used for launching.

e. Modern comfort station: This facility will consist of a lavatory and two water closets on the women's side, a lavatory, urinal, and water closet on the men's side, and a plumbing chamber storage area between them. It will be designed to accommodate handicapped individuals.

f. Electrical system: Service will be from the existing transmission line nearby. The new lines will be installed underground and will distribute electricity to the administrative area, the comfort station, and to the wall. No electric power will be provided to individual sites.

g. Water system:

a. submersible pump will be installed in the comfort station area to pump water to the site. The water system will be installed with Department of Health approval. Water will be provided to the site by a pump.

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TYPICAL CAMPSITE

A resident caretaker will be employed during the summer season to provide directions and information. He will also be responsible for day-to-day maintenance of the site and the collection of use fees. The caretaker will also be responsible for collecting the garbage throughout the area and depositing it in the dumpster. The garbage will be collected from the dumpster by a commercial hauler and disposed of in a legal sanitary landfill.

The standard rules and regulations of the Department will apply to this site. Some of the more important of these include: a limit on length of stay, restricting vehicles to established roads, and restrictions on disturbance of vegetation and topsoil. These regulations will be primarily enforced by the caretaker. However, the caretaker has no legal enforcement capabilities. When he encounters any enforcement problems, he will rely on Fish and Game wardens.



II. DESCRIPTION OF THE ENVIRONMENT

A. Natural

1. Topography and Geology

Placid Lake (el. 4121) lies in the Clearwater Valley, an area bordered on the east by the Swan Range and on the west by the Mission Mountains. Like many lakes and potholes in the region, it was formed by the melting of an ice block--part of a receding Pleistocene Mountain glacier.

Ice in Placid Creek's ancestral valley once extended from north of the lake all the way to Blanchard Creek, about 10 miles to the south. Its meltwaters later left widespread debris, including sand and gravel and a mantle of till--the first underlying the proposed campground, the latter beneath the day-use area. Beneath the mantle of glacial debris lies the Belt series of Pre-Cambrian Age. Neither spot has unique physical features or exploitable mineral resources.

The area does contain a fault paralleling Owl Creek, then apparently continuing under Placid Lake itself.

2. Soils

Soils in the proposed recreation area include three gravelly loams--Holloway, Winkler, and Winkler-Sharrott--all of them characterized by slow surface runoff and slight erosion hazards. There is also marshy ground near the Owl Creek outlet, a spot which Fish and Game will not develop.

Holloway soils are found in the south half of the proposed campground. Typically, they are about 50 inches deep, with an 8-inch surface layer of fine silt loam (stony, but without much angular gravel); sub-soil horizons of sandy, very gravelly loam containing nearly 45% gravel. They are moderately permeable and occur on 15% to 30% slopes.

Winkler soils (found in the proposed day-use area at the lake's north end) lie on slopes of 5% to 30% and have more angular gravel in their surface layers than do the Holloways. They are about 70 inches thick (with 40-inch surface layers) and, like the Holloways, are moderately permeable.

The Winkler-Sharrott Association (found in the north half of the proposed campground) introduces a new element--the Sharrott gravelly loam, which makes up 15 percent of the association, lies but 20 inches or less above argillite bedrock. The Sharrott profile contains 40% to 70% coarse fragments and is moderately permeable to a depth of 15 inches. Otherwise, depending on exactly where the dominant Winkler Series lies, the campground's soils are fairly similar to those of the proposed day-use area.

According to the Soil Conservation Service's construction suitability tables, all three soils can present certain problems for recreational developers.² These generally involve steep slopes, the percentage of rock fragments in surface layers, and, in one case, shallow depth to bedrock.

3. Climate and Air Quality

The National Weather Service station closest to Placid is at Seeley Lake, where normal mean temperatures range from 18.8 degrees F. in January to 62.3 degrees F. in July, and monthly precipitation from 1.0 inches in August to 2.9 inches in January. The annual mean temperature is 41 degrees F., and yearly precipitation averages about 22 inches--over half of it in May, June, and November through January.

Air quality at Seeley Lake is considered very good, though at the ranger station in 1972 sometimes recorded high particulate presumably dust from nearby roads. The year's average 24-hour count (26 micrograms/cubic meter) represents a typical background concentration in rural Montana.

4. Surface Water

Placid Lake has nearly 1,200 surface acres and a maximum depth of 88 feet. It is fed from the west by Placid Creek and drains to Clearwater tributary called Owl Creek--site of aquatic research by the University of Montana (see Appendix A).

Studies of the lake's biological and chemical equilibrium are complete, but the heavy use of the shoreline by cabin campers and recreationists is potentially deleterious to the water quality. Crowding and uncontrolled driving have damaged the shoreline, leading to increased erosion and sediment loads in the lake. Facilities--such as unsealed latrines in areas of high use--add nutrients and organic pollutants to the lake.

Despite these localized problems, the lake's water quality is generally good and will probably remain so for the foreseeable future.

5. Ground Water

There is little known about the east shore's groundwater except that it lies deeper than 10 feet as shown by the test wells on the southwest shore yield a calcium-magnesium water with no coliform bacteria and few nutrients, but levels of calcium and magnesium do not meet Public Health Service drinking water standards.



6. Vegetation

Both parts of the proposed recreation area are forested; the plant communities show evidence of man's disturbance. Altogether, there are 76 species of vascular plants (2 fern allies, 7 conifers, and 67 flowering ⁴), including some aquatic vegetation in two bogs near the campground. Although the endangered Howell's gumweed (*Grindelia howellii*) occurs nearby, it is not found on the proposed development sites. As for the lake itself, water quality studies have turned up 23 species of large aquatic plants (including water lily and considerable growths of pondweed, *Potamogeton* spp.); and several algae such as *Anabaena flos-aquae* and *Aphanizomenon flos-aquae*.

In general, east shore vegetation looks like this: the proposed day-use area at the lake's north end is comparatively mesic, its plant life uniform. The canopy consists of ponderosa pine, with a few other evergreens and deciduous trees; and the badly trampled understory has Wood's rose, Sitka alder, creek dogwood, and several common herbs. The main campground is somewhat arid, but it also borders on the lakeshore and two bogs. The drier portion has a canopy of Douglas fir (with ponderosa pine and tamarack) and an understory dominated by snowberry, ground mahonia, and various sedges. Plant succession is not complete because the area has been repeatedly disturbed by road building, logging, and uncontrolled recreational use; but in terms of habitat types (Pfister's et. al. 1977 system), the vegetation most closely resembles the Douglas fir-snowberry association.

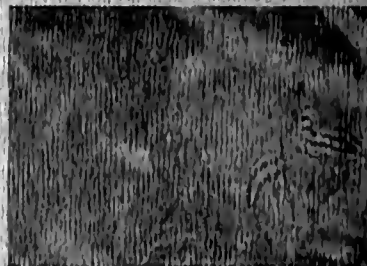
Near the bogs are small stands of Engelmann spruce, and, at the edges, willows, creek dogwood, Sitka alder, and several herbs, including Gmenlin's buttercup. So far, the only aquatic plants observed in the bogs are water lentil and Canadian waterweed. For a detailed list of vascular plants in the proposed recreation area, see Appendix B.

7. Fish

Placid Lake's native fish include cutthroat trout, Dolly Varden, mountain whitefish, northern squawfish, peamouth, and largescale and longnose suckers. Among the exotics are rainbow and brook trout, largemouth bass, yellow perch, pumpkinseed (sunfish), and kokanee (salmon). Of these, the game fish most commonly caught are, in order, kokanee, rainbow trout, cutthroat trout, and Dolly Varden. All species are self-sustaining except the rainbow which are stocked periodically.



Most fishermen troll the lake, although there is fall kokanee snagging at the Placid Creek inlet. Pressures are moderate (about 8000 fisherman days during the 1975-76 season*), and the lake's average catch rate of 0.7 fish per hour is considered good. Placid Creek itself is an excellent producer of brook trout and some cutthroat; and Owl Creek has rainbow, brown, and cutthroat trout, and Dolly Varden. During the 1975-76 season, Placid Creek provided about 170 fisherman days, while pressures on Owl Creek were apparently light.



8. Wildlife

The proposed recreation area is a small, fairly diverse site with wildlife habitat ranging from open forest to bogs. Despite heavy recreational use, it still supports a few resident birds, small mammals, reptiles, and amphibians; other wildlife, including several kinds of big game, visit the site. The sites are not important big game winter range; however, adjacent slopes and benches to the north and east are used. The sites do not harbor any known threatened or endangered species.

The area's summer or year-long residents include American kestrels, ruffed grouse, mourning doves, killdeer, spotted sandpipers, belted kingfishers, chickadees, and several other song birds; mammals such as shrews, chipmunks, mink, muskrats, short-tailed weasels, striped skunks, and snowshoe hares; and three common reptiles and amphibians--red-sided garter snakes, western painted turtles, and Rocky Mountain toads.

Transitory species of the site are various waterfowl including Canada geese, mergansers, grebes, teal, and other ducks; raptors such as bald eagles, osprey, and red-tailed hawks; and several shore and song birds. Visiting mammals include black bears, white-tailed deer, coyotes, bobcats, beaver, porcupines, and others. For a more complete list of the area's wildlife, see Appendix C.

* Each fisherman day is a stop of no more than one day at a fishing place.

D. Human

1. Archaeological Resources

Western Montana was traditionally the home of three Indian tribes--the Flathead, Pend d'Oreille, and Kutenai--all members of a "Plateau" or intermountain culture found between the Cascades and the Rockies. Fairly mobile people, they used the region's valleys for hunting, food gathering, and travel; and after the early 1700's (when they obtained horses) they even rode over the Continental Divide in search of buffalo.

The Flatheads (who owned more horses than the other tribes) routinely ranged from their homes in the Bitterroot Valley to the Continental Divide, and perhaps from present-day Arlee to the Big Hole River. According to Carling Malouf, their "hunting and gathering" lands included the Clearwater Valley and other Blackfoot River tributaries; in fact, the Seeley Lake country was considered "excellent hunting," and the Blackfoot drainage had abundant plant foods such as camas, berries, and pine nuts.⁵

Though archaeological finds have been made at Swan Lake and along the Clearwater, a recent survey at Placid has yielded nothing. The proposed recreation area is heavily used by recreationists, and any oboriginal materials there apparently have been obscured.⁶

2. Historical Resources

Settlement and occupation of the Placid area began in the early 20th century. The land surrounding the lake was first logged at this time also, about twenty years before the first cabins were constructed. At first, the loggers floated timber down Owl Creek (Placid's outlet stream), but in the 1930's a new road brought access from the east.

Placid's first cabins were built in the 1920's.

Nothing at or near the lake is either included--or is thought eligible for inclusion in the National Register of Historic Places. The same is true for the Montana State Register.

3. Population

		<u>AREA</u>	
	<u>Seeley Lake Blackfoot Census Area and adjacent area</u>	<u>Missoula County</u>	<u>Fish & Game Region 2</u> ¹
1970	1,700	58,263	100,600
1980	2,100	72,500	120,000
1990	2,600	89,200	144,000
2000	3,200	106,000	165,000

¹ Missoula, Mineral, Powell, Granite, Deer Lodge and Ravalli counties.

The population of all areas which Placid Lake is anticipated to serve is expected to continue to grow through the year 2000. While the areas immediately adjacent to Placid Lake may nearly double by 2000 and Fish and Game Region 2, exclusive of Missoula County, may add as many as 17,000 persons, growth in terms of absolute numbers is expected to center in Missoula County and the City of Missoula through the year 2000.

4. Economy and Employment

For years the Clearwater country's economy has been based on timber and outdoor recreation. The area has considerable public and private forest land, well-known recreation spots, and many cabins--some of them at Placid Lake dating back to the 1920's. The town of Seeley Lake itself (pop. 800) does a brisk tourist trade, providing local lodging, meals, and supplies, etc.; but the county's real business center is Missoula, about an hour's drive away.

Timber and recreation are also important county-wide. In 1974, more than 1900 Missoula County residents worked in the lumber and wood products industry, and their total payroll was almost 19 million dollars. By way of rough comparison, the county's hotels, motels, trailer parks and camps--businesses which often profit by their connections with outdoor recreation--employed 604 people in 1972 and had receipts of 24.7 million dollars.⁸

5. Land Use

a. Ownership and Taxes

The land around Placid Lake is divided among (1) Champion International, which owns half of the shoreline--including portions of the south and east sides; where there are 14 cabin leases; (2) the Montana Forestry Division, which has parts of the south and west shores, and also leases 28 cabin sites; and (3) private owners at the lake's north end. As a rule, the cabin dwellers are weekend or seasonal residents.

The tracts which Champion has offered to the state are classed as "undeveloped recreational lands" by Missoula County. Taxes on them in 1976 totalled about \$870.00.

b. Utilities

Powerlines parallel the north Placid road and the east shore road. There are two pit latrines existing on site. No other utilities are present.

6. Public Recreation

a. Placid Lake

For years, public recreationists have used the privately-owned, mostly-undeveloped east shore of Placid Lake. Here they park where they can, then camp, swim, or launch their boats. Their numbers are hard to estimate, and the Missoula County Comprehensive Plan notes simply that Placid Lake "can and (does) support intensive recreational activity."

There are, however, Forest Service traffic counts for the Placid area. Based on them--and some Forest Service estimates of vehicle type--it appears that as many as 21,664 "recreational" vehicles* may have gone to Placid Lake between June and December

* Public recreationists plus Placid cabin owners and their guests.

of 1976. At 4.1 persons per vehicle (a factor reported in Fish and Game's 1976 "Flathead Fee Study"), that would mean 88,822 visitors--62,861 of them in June, July, and August. This figure is slightly exaggerated as cabin owners were counted also.

The Montana Department of Fish and Game also has a general picture of east shore users--the result of weekend surveys in July and August of 1977, when 121 groups were interviewed. The department found that: (1) most of the people, 103 groups, were from Missoula, Lewis and Clark, and Flathead counties--very few from out-of-state; (2) three-fourths of them were staying overnight, mostly in trailers or campers--though a dozen used tents and a few slept in their cars; (3) over half the groups questioned said that they visited the east shore three or more times a year; and (4) the favorite activities at the lake were, in descending order of popularity: fishing and resting/relaxing (tied for first); motorized boating; swimming or wading; water-skiing; picnicking; and a number of others, including motorcycling, bike riding and hiking.

The study revealed that most present users of the area wish to have improved restroom facilities and drinking water developed. Most of the present users are fairly well satisfied with the area as it exists. This was anticipated by the department as non-users were not interviewed.

b. Missoula County

According to its 1976 Parks, Recreation, and Open Space Plan Missoula County has 21 state or federal nonurban recreation sites, seven of them offering both camping and boating. Local governments, on the other hand, provide no nonurban recreation sites at all, though Missoula County does own about 100 acres of undeveloped parkland southeast of Seeley Lake. It will probably remain open space.

Besides showing little desire to leave "critical decisions concerning recreation opportunities and landscape modification" to federal and state agencies, the recreation plan suggests that: (1) state and federal agencies should be encouraged to develop day-use sites (especially near water) within 50 miles of Missoula; and (2) the Clearwater lakes could be viewed as a "regional" recreation complex--that is, an area serving metropolitan and multi-county users.

SEELEY
LAKE

SEELEY LAKE

ROAD

ROAD

ROAD

Placid
Creek
Holes
Creek

ROAD

PLACID LAKE

EXISTING
TRANSMISSION LINE

DAY USE AREA

RECREATION AREA

Owl
Creek

ROAD

209

River

SALMON
LAKE

Legend



Champion International



State Forestry Division



Champion Donation

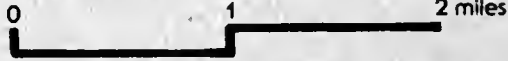


Privately Owned



North

Bar Scale



Placid Area

c. State of Montana

Fish and Game Region 2 (Missoula, Mineral, Powell, Granite, Deer Lodge, Ravalli and a portion of Lewis and Clark counties) has 31 state recreational sites--most of them highway fishing accesses on streams. Only two in eastern Missoula County offer camping, picnicking, and boating; and one of them is Fish and Game's Harper Lake Fishing Access, which is a small campground north of Clearwater Junction.¹⁰ Besides the Placid and Salmon recreation areas, there are no Fish and Game developments proposed for the Clearwater Valley.

The Placid Lake project meets several needs identified in the 1973 Statewide Comprehensive Outdoor Recreation Plan (SCORP) and in the preprint drafts of the 1978 version. The 1977 legislative long-range building program established the Placid Lake project as the 37th priority out of 64 projects statewide. This priority list includes all other capital construction projects of most all branches of state government.

1973 SCORP

Montana's 1973 SCORP includes discussions of the "regional park"--a useful way of looking at the Placid and Salmon Lake proposals. "Regional" recreation sites serve mainly urban populations, plus county residents and people from small nearby towns. The standard for them is 25 acres/1000 population, and their emphasis is supposed to be on the natural environment and such activities as camping, picnicking, and water sports. Though it is hard to tell which federal lands may actually function in this way, it appears that Region 2 is seriously deficient in regional parks. This view is supported by the Department of Fish and Game and the Missoula County Parks, Recreation, and Open Space Plan.

The 1973 SCORP also mentions recreation sites which (like Placid's east shore) are already used informally. It recommends that their facilities be improved where practical.¹¹

1978 SCORP

Data collected for the 1978 SCORP (to be published in March, 1978) confirms that Fish and Game's Region 2 is short of regional park facilities, a situation expected to worsen over the next 15 years as the area's population grows. Region 2 rates high in priority for the enhancement of camping and day-use facilities. The data also show a need for more boating opportunities in Region 2--as many recreationists must now travel to other areas.¹²

d. Federal Government

Developed Forest Service campgrounds are fairly numerous in the Clearwater Valley. Three at Seeley Lake offer a total of 105 campsites, 38 picnic spots, and 2 boat launches; to the north, lakes Inez and Alva together have 22 campsites and two boat ramps. Two other lakes west of Placid--Elsina and Spook--also have several heavily-used, undeveloped campsites. In 1977, summer occupancy of the Seeley Lake campgrounds ran about 50 to 55 percent, with some days considerably busier than that. Almost 85 percent of the users were Montanans.

In fiscal year 1978, the Forest Service plans to add 20 campsites and a swimming beach at Lake Alva; beyond that, no expansion of recreational facilities is slated for the area. As yet, there is no recreation management plan for the Clearwater chain of lakes, but some preliminary work on it has already begun. One idea, according to the Forest Service, might be to concentrate people--and water-oriented recreation--at the south end of the chain. Thus Seeley Lake would have many campgrounds, resorts, and water skiers; Clearwater Lake would have neither road access nor motorboats. The proposed Fish and Game developments at Placid and Salmon, it is felt, "could fit nicely on the higher end of that spectrum."¹³

7. Traffic

For several years employees of the Lolo National Forest have monitored traffic in the Placid Lake Area--especially on the main Placid Creek Road (349) which runs west from Highway 209. Vehicle counts were made from May to August, 1968; in July, 1974; and from June to December, 1976--and there were also some surveys of drivers' destinations.

In 1976, the Placid Creek Road had over 32,500 vehicles between June and December. Most were counted before October, and the busiest month was July, when there were about 8800, including an estimated 7100 recreationists and 725 loggers.

Not surprisingly, federal planners have found that most of Road 349's use is recreational: roughly 70% in 1976, with 10% logging-related, and 16% "public service and other" (including area residents).¹⁴ Before logging and residential traffic picked up, earlier surveys put the recreational vehicle at more than 90% and suggested that most of the drivers were headed for Placid Lake. Whatever its exact percent of the total, recreational traffic is apparently on the increase: the Forest Service's 1975 Placid area study projects a yearly growth of 2 to 3%.¹⁵

8. Aesthetics

The Placid area is scenic, but not unusually so for western Montana. Some lakes in the Clearwater valley show more obvious human disturbance than does Placid, some show less. Most viewers, though, would agree that the setting here is fairly natural and that mountain lakes like Placid have considerable scenic value.

Use levels at Placid on summer weekends are high. Purists might consider the present traffic, boater, and camper levels objectionable. However, vegetation acts as a noise level buffer as well as providing shade and relative seclusion. In some areas, however, the soil has been compacted beyond its ability to support vegetation.

Another matter of concern is the proposed Colstrip-to-Hot Springs 500 KV power line, which--if the Montana Board of Natural Resources recommendation is accepted, could run just southwest of Placid Lake possibly within the existing power corridor. Physically, such lines would not affect the recreation area; visually, their impact is hard to determine at this time.

For detailed information on the lines--and how their route will be decided--see Appendix D.

9. Sanitation, Health and Public Safety

Through an informal arrangement with Champion International, Fish and Game already helps maintain the proposed recreation area, but the site is sometimes littered. There is no developed source of water and the pit latrines definitely need to be replaced.

The Missoula County Sheriff's Department now patrols the Placid Lake area. The department wardens also patrol both the land and water areas by car and boat. Swimmers and boaters are presently using the same areas of the lake. Logging and cabin site traffic is routed through the proposed development area.

III. ENVIRONMENTAL IMPACTS

A. Natural

1. Topography and Geology

Development and use of the recreation site will have little effect on the area's landforms, and no impact on mineral resources or unique physical features.

2. Soils

The proposed action will mean continued--though perhaps reduced--disturbance and compaction of the area's soils. Previously unused land will be disturbed, and people will still trample soils which, although not highly erodible, could over time become more compacted. But there will also be much improvement: (1) less pressure on some already-trampled sites and (2) restrictions on where motor vehicles can be driven.

3. Air Quality

During construction of the campground, there will be brief, local increases in the level of dust and exhaust emissions near Placid Lake. When the project is completed, the department expects about the same amount of traffic, dust, and campfire smoke as there is today in the area of Placid Lake, but less dust at the recreation site itself since there are plans to block the east shore road and pave parts of the campground.

4. Surface Water

Upgrading Champion's Placid Lake access from an uncontrolled camping and boating spot to a supervised recreation area will reduce impacts on water quality. The proposed road system will limit land disturbances (and erosion) caused by vehicles, while the single well developed boat ramp will take pressure off shoreline areas by limiting use to one launch area. Both will reduce sedimentation.

Also, new sanitary facilities will eliminate potential organic and nutrient pollution of the lake. A drainfield and several sealed vault toilets will be installed.

5. Ground Water

The project's potential impacts on ground water are unknown. However, the water table lies deeper than 10 feet below the ground surface and the area is not a ground water recharge zone. Therefore, any impacts are expected to be very minor.

6. Vegetation

The Placid project's overall impact on vegetation are hard to predict, however, the development of footpaths, as well as camping and driving restrictions, could stem the deterioration of the area's flora, or even improve its condition.

On the other hand, the recreation area's development will save nearly 1.5 acres of vegetation, most of it brush, which otherwise would be removed to make way for parking areas and trails. The area's vegetation survives despite heavy use. Two other factors—the small number of heavy equipment operators at the work sites and the fact that most visitors stay on roads and paths—will figure in the project's final impact on vegetation. Both could prove adverse.

7. Fish

The proposed project will have little effect on the lake's fisheries, as no pollution of the surface waters is anticipated. Lake fish populations are self-sustaining, with the exception of bass, which are stocked.

8. Wildlife

Development and use of the recreation area will have little effect on wildlife. The loss of some cover and disturbance to nesting birds by construction and recreationists will disrupt the nesting of several small animals. But such effects are minor, and many birds, as most species have adjusted on and around the lake, will continue their presence at the lake.

One positive effect of the project should be improved enforcement of state fish and game laws in the area through the presence of a game warden.

9. Human

1. Archaeological and Historical Resources

Surveys on the proposed development area have turned up no archaeological finds of any kind and nothing of historic interest for inclusion in the National Register of Historic Places. The Historic Preservation Officer has certified that the project will have no effect on these resources.

2. Population, Economy, and Employment

As one of many recreation spots in eastern Missoula County, the Placid Lake development will have a negligible impact on the area's population, economy, and employment. If Fish and Game acquires the land, it will never be used for logging or cabins; thus Missoula County could lose about 32 acres of second-growth timber and several small construction jobs.

Conversely, area businesses and workers (who receive contracts) might help to develop the recreation site. This could mean about ten four-month jobs. Following construction, the campground would be managed by a single Fish and Game seasonal employee. Also, Seeley Lake merchants stand to profit from the development--especially if its users need provisions, gasoline, or meals.

3. Land Use

a. Options and Taxes

The proposed Placid Lake project will have little effect on the area's land use patterns. Champion's offer itself asks that the tracts be used--as they are now--for recreation. The property will be removed from the county tax rolls.

Acceptance of the Champion offer will obviously end the company's options for administration of the land: (1) continuing to permit unsupervised public use of the tracts, (2) posting the property, and (3) subdividing, selling, or logging the sites.

b. Utilities

The project will also have little effect on the area's utilities. Powerlines adjacent to the proposed campground will be tapped, and those along the east shore eventually buried. New water and septic systems are parts of the development.

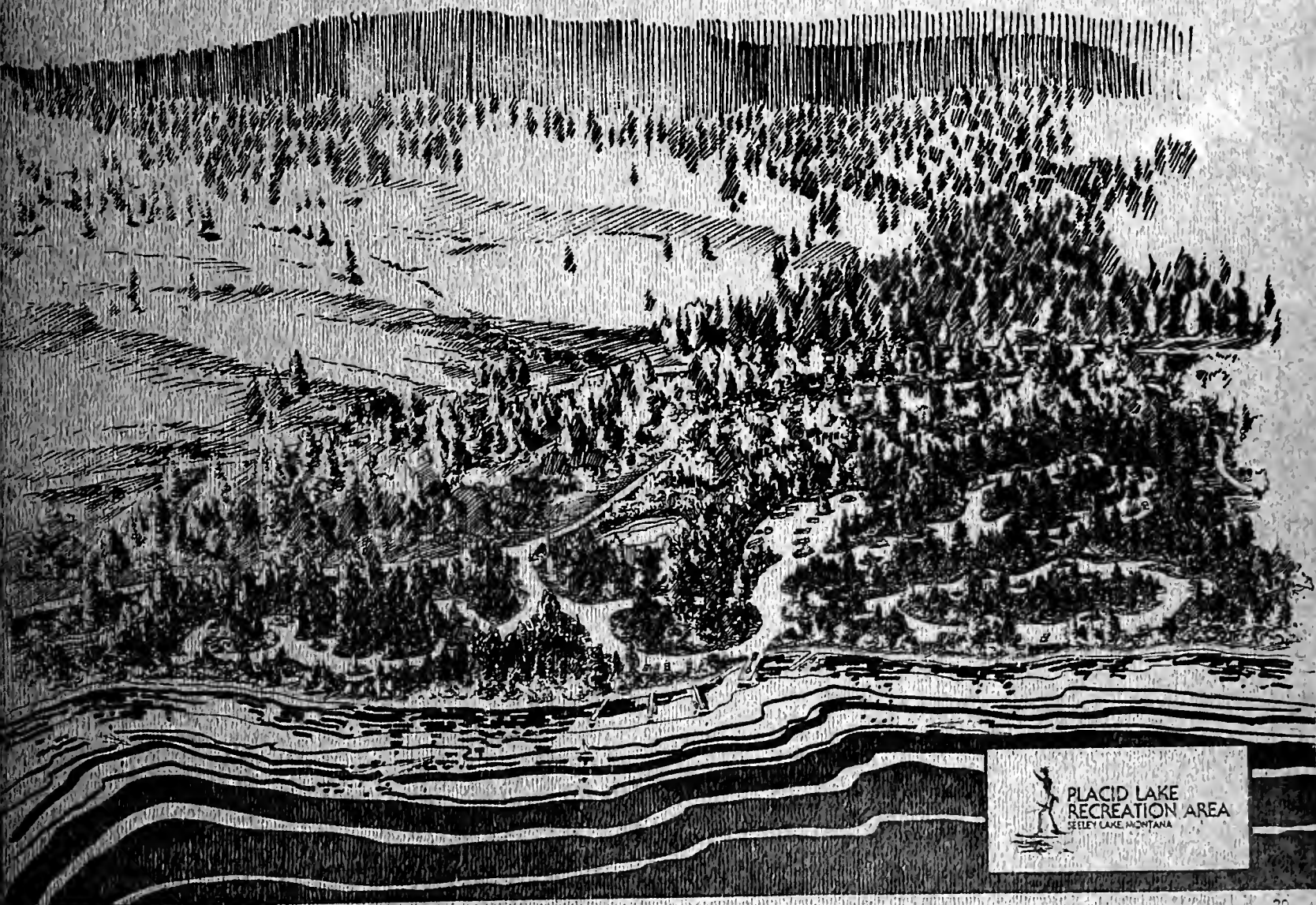
4. Public Recreation

Fish and Game's proposed action will have several effects on the recreational use of Placid Lake. The project is expected to: (1) guarantee public access to the lake; (2) preserve two popular recreation sites for the long-term enjoyment of the public; (3) broaden the user base at Placid; (4) cause a slight shift in user groups from those who enjoy a more primitive environment to those who can accept a more controlled and regulated facility; and (5) increase controls over public users.

- Guaranteed access - Placid's shoreline owners could end public access to the lake. The proposed action eliminates that possibility.
- Site preservation - The tracts cannot sustain uncontrolled use without sustaining more physical damage. The recreation area design insures that the site will be developed to limit physical damage to the extent this is possible, while applying landscape architecture principles to insure aesthetic compatibility.
- User base - Signs on Highway 209, and the recreation area's appearance on state maps, will bring new users to the lake. They will include nonresidents and Montanans not previously aware of Placid Lake. The greatest impact should be from the latter since Highway 209 is not a major tourist route.

Broadening the range of Placid Lake users should not mean major changes in their numbers. After a rush of county residents curious about the site, the east shore should have about as many visitors as it has today. Use will increase as population and leisure time increase.

Long-term predictions are complicated by the fact that use of the Placid area (at least the amount of recreational traffic there) is already growing at the rate of 2% to 3% a year.¹⁶ Naturally, a new recreation area would become a factor in that growth--but only to a point: the site facilities will only handle a limited number of visitors.



PLACID LAKE
RECREATION AREA
SEELY LAKE, MONTANA

IV. MEASURES TO MINIMIZE ADVERSE ENVIRONMENTAL IMPACTS

One reason for the development's small number of impacts is that the design takes advantage of several already-used areas. By focusing on these areas, Fish and Game will hold the disruption of wildlife and undisturbed ground to a minimum. To further reduce the project's adverse effects, and to enhance the quality of the site, the department will also:

- Close, obliterate, and reseed unused roads and parking areas in the two tracts.
- Plant trees and shrubs to screen the new facilities, especially where cover is lost to construction. (Landscaping should also slow down soil erosion and compaction.)
- Design roads to minimize cuts and fills.
- Reduce dust in the main campground by (1) controlling the speed of vehicles and (2) graveling, paving, or oiling sections of the roads.
- Introduce regular garbage pickups and a sanitary sewage system.
- Provide an attractive but durable recreation area by exerting reasonable controls on users' numbers and activities.

Though the proposed project is not expected to disturb archaeological resources or the University of Montana's Owl Creek Aquatic Study, the Department of Fish and Game will (1) warn construction crews to be watchful for buried cultural materials and (2) aid the Owl Creek researchers by posting signs near their equipment, or by collecting water samples in the summer so that experts can monitor changes, if any, in Placid Lake's water chemistry.

V. UNAVOIDABLE ADVERSE IMPACTS

Despite efforts to minimize its adverse effects, the proposed project will still (1) cause increased levels of road dust, exhaust emissions, and noise during the construction phase; (2) contribute to soil disturbance and compaction; (3) destroy nearly 1.5 acres of vegetation; (4) disrupt the normal activities of several small animals; (5) bring occasional problems with litter and vandalism of public property; and (6) remove the property from the county tax rolls.

VI. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Construction work at Placid Lake will cause various short-term disruptions of the environment—increases in road dust, exhaust emissions and noise, and disturbances of vegetation, soil, and small animals. These (along with users' impacts on wildlife and soils, the loss of taxes, and temporary problems with litter, vandalism, and the displacement of people who don't like the new development) will be the immediate costs of the project.

Weighing against that will be (1) a guarantee of permanent public access to the lake; (2) quality recreational facilities for future generations; (3) long-range improvements in the appearance and condition of the lake's east shore; and (4) systematic management of the site.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The fossil fuels used by the construction equipment will be gone. The monetary commitment is irretrievable. The area will be committed to recreational use in perpetuity, under the terms of the Federal Land and Water Conservation Fund agreements. Therefore, the potential for other uses of the property will be eliminated.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

A. No Action

One of the Department of Fish and Game's option is simply to refuse the Champion International donations at Placid Lake. What would happen then to the lake's east shore--and to public recreation there--is impossible to say. Champion could: (1) continue to allow public use of its property; (2) post the land; (3) subdivide or log the tracts; or (4) a combination of the above.

These options would create impacts ranging from a continuation of present unsanitary, uncontrolled overuse to the loss of the recreation opportunity and the degradation of the site by loss of tree cover and possibly soil erosion.

B. Design Alternatives

The department also has a full range of design options--from little or no development at the site to more than what the plans now show, but if the department goal is providing quality recreation in a setting that can be conserved, neither extreme makes much sense. Left unprotected, both areas will continue to deteriorate; if over-developed, monetary and environmental costs will outweigh the benefits to society.

Perhaps a more useful approach is to view the development plan as the maximum which will be implemented. Monetary limits may force the proposed developments to be constructed in phases. The Master Site Plan is schematic to the extent that individual facilities or sites may have to be field adjusted to take advantage of precise openings in vegetative cover or to avoid terrain features which have aesthetic value.

Another option would be to design the facilities for other types of use or to place the facilities in different

locations. To provide for other types of use would decrease the flexibility of the developments and would not provide for the demands of the public. To locate the specific developments in different areas within the site would: (1) disrupt more vegetation; (2) not separate uses; (3) complicate traffic circulation; (4) possibly not comply with health regulations, and (5) would not satisfy desires as well as the proposed Master Site Plan is expected to.

D. FOOTNOTES

¹The legal descriptions are, respectively, Section 20, Township 14 North, Range 15 West; and the SE of Section 21, and SE of Section 28, Township 15 North, Range 15 West. Rural acreages are 49 and 30-05.

²Sloppy soils (15 to 30 percent slopes) impose "severe" limitations on the development of most recreational facilities, roads, and parking areas. Higher soils (slopes of 1 percent and up) present moderate to "severe" limitations for the same things--both because of their typical slopes and sometimes the coarse fragments on their surface layers. The only Shapcott soils (ancestral "barren" substrates) on buildings and parking areas' construction (as well as landscaping work) and moderate" limitations on the development of playing and picnic areas (SCS, 1972).

³A test hole was drilled at the proposed campground (USGS, Helena, Montana) south in the southwest slope.

⁴The survey was made in September, a time when the investigation could not find or identify every plant at the site.

⁵William H. Gaur, "Looney and Lake Ute by the River," 5th edition, Montana, in Interior Series and Eastern Washington, Volume 12, 24. David A. Barr, New York, Geological Publications, 1974, pp. 25, 101, 28, 121-13.

⁶Barbara A. Hall, "Archaeological Survey, Salmon and Plain Lakes, Survey of Human Development of Fish and Game," 1971.

⁷U.S. Department of Commerce, Bureau of the Census, County Business Patterns, 1972, CB-72-26, Commerce, Washington, D.C., 1973.

⁸U.S. Department of Commerce, Bureau of the Census, County of Selected Service Industries, 1972, Area Series, Commerce, Washington, D.C., 1974), p. 27-11.

X. SELECTED REFERENCES

- DeGeorgio, Ramona. "Survey of Recreational Users at Placid Lake" (for Montana Department of Fish and Game), 1977.
- Malouf, Carling. "Economy and Land Use by the Indians of Western Montana," in Interior Salish and Eastern Washington Indians II. Ed. David A. Horr. New York: Garland Publishing, Inc., 1974.
- Missoula Planning Board. Missoula County Parks, Recreation and Open Space Plan. Missoula, 1976.
- _____. Phase I: Missoula County Comprehensive Plan. Missoula, 1974.
- Montana Department of Community Affairs, Division of Research and Information Services. Montana Population Projections, 1975-2000. Helena, 1977.
- Montana Department of Fish and Game, Division of Recreation and Parks. "On the Potential Efficacy of Day User Fees in 11 Water Based Recreation Areas in Northwestern Montana" ("Flathead Fee Study"). Helena, 1976.
- _____. Montana Statewide Comprehensive Outdoor Recreation Plan: Vol. 1, "Executive Summary" (Helena, 1973); Vol. 2, "Statewide Non-urban Developed Recreation Site Inventory," 1976; and preprint drafts of the 1978 revision.
- Pfister, Robert D., B. L. Kovalchik, S. F. Arno, and C. Presby. Forest Habitat Types of Montana. U.S. Forest Service General Technical Report INT-34. Ogden: Intermountain Forest and Range Experiment Station, 1977.
- Rice, Jim. "Preliminary Picture of Traffic Type: Placid Creek Road 349." Lolo National Forest, 1968.
- Till, Barbara A. "Archaeological Report: Salish and Placid Lakes" (survey for Montana Department of Fish and Game), 1977.
- U.S. Department of Agriculture, Forest Service, Lolo National Forest. Land Use Management Plan for the Placid-Blanchard Planning Unit. Draft Environmental Statement, 1977.
- U.S. Department of Agriculture, Soil Conservation Service. Soil Survey of the Lower Blackfoot Area, Missoula County, Montana. Bozeman, 1972.
- U.S. Department of Commerce, Bureau of the Census. "Estimates of the Population of Montana Counties: July 1, 1975 and 1976," in Current Population Reports, Series P-26, No. 76-26. Washington: GPO, 1977.
- _____. County Business Patterns, 1974. CBP-74-28, Montana. Washington: GPO, 1976.
- _____. Census of Selected Service Industries, 1972. Area Series, Montana. Washington: GPO, 1974.
- Wilson, Larry. "Traffic Study and Projections: Placid Creek Area." Lolo National Forest, 1975.

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XII. APPENDICES

- A. Owl Creek Aquatic Study
- B. Vascular Plants of the Proposed Placid Lake Recreation Area
- C. Wildlife of the Proposed Placid Lake Recreation Area
- D. Colstrip 500 kV Lines

APPENDIX A



University of Montana
Missoula, Montana 59812

DEPARTMENT OF ZOOLOGY

(406) 546-6122

November 9, 1977

Recreation and Parks Division
Montana Department of Fish and Game
Helena, Montana 59601

Dear Tom,

Thank you very much for your interest in our work at Owl Creek. We have been doing various experiments in stream energetics along that stream for about five years. Now, we finally have a chance to tell people what is happening up there.

Most of running water ecology, as you may know, is still very much in its infancy. Where limnologists have been studying lakes for almost 100 years, stream ecologists have only been playing their trade for 20 to 30 years. Unfortunately, these past 30 years have seen the greatest amount of stream alterations than any other interval of that length. Most stream biologists have just barely gotten past the point of obtaining baseline information on what is living in the streams. The alterations often preclude much research beyond that point.

Lake outlet ecosystems, such as Owl Creek, are unique subsets of most running water ecosystems. They are not like first and second order watershed streams. Rather, in many ways, they mimic larger order rivers in their productivity ratios, benthic community, and water chemistry. Because they are shallow and easily accessible, work on lake outlet streams could provide model information about larger rivers in the area. Dr. Andrew L. Sheldon, Dr. Mark Oswood (presently at the University of Alaska), and I have been examining the energetics of this stream for many years in an effort to construct a model of nutrient flow and energy flow through a typical lake outlet ecosystem. As a matter of fact, Mark Oswood's information on the role of filter feeders (the caddisflies, in particular) will be critical to our knowledge of the dynamics of the stream. Since the time of the publication of Park's information, we have examined the roles of some of the major stonefly predators and will be looking at the role of the mayflies as well as autotrophic and heterotrophic productivity in the stream as it is affected by the lake. Any major impact which would cause an increase in the sediment load of the stream or the amount of organic material derived from the lake which then passes into Owl Creek could change the dynamics of the stream to the point where previously obtained data on the stream would be nullified.

A sound management practice with regards to the proposed new campsite on Placid Lake would require monitoring of changes in lake chemistry, particularly with regard to particulate organic material, dissolved oxygen, turbidity, and phosphates. If there can be maintained at or about their present levels or their predicted changes due to natural orogenic changes which occur in the lifetime of a lake, our own research will have been aided immensely and the impact to the dynamics of Owl Creek and other downstream areas will probably be negligible.

Equal Opportunity in Education and Employment

November 9, 1977

Page 2

As we have ongoing experiments on and in Owl Creek all year round, it would certainly be appreciated if the Fish and Game Department could put up some signs asking people out to remove equipment from the stream. The "equipment" includes artificial substrates (shelters with rocks in them), algal productivity slides (strips with microscope slides attached to them), dissolved oxygen bottles, thermographs, and insect drift pots at various times of the year.

It is anticipated that research will continue for at least another four or five years. We also hope to enter up in the lake itself (to examine zooplankton and fisheries dynamics) and into the Placid Creek watershed to do some assessment of clearcutting impact.

If you should require any further information, I would be glad to provide it.

Sincerely,

James A. Core

JAMES A. CORE
Dept. of Zoology
University of Montana
Missoula, Montana 59812

P. S. For what value it may be, my qualifications are a B.A. in environmental biology, and M.A. in aquatic biology (from U of Colorado and U of Montana, respectively). I am presently a Ph.D. graduate student and instructor at the classes in stream ecology.

JAG/pjt

APPENDIX B

VASCULAR PLANTS OF THE PROPOSED PLACID LAKE RECREATION AREA *

<u>Common name</u>	<u>Scientific name</u>	<u>Common name</u>	<u>Scientific name</u>
fern allies:		flowering plants:	
common scouring-rush	<i>Equisetum hymale</i> L.		
marsh horsetail	<i>Equisetum palustre</i> L.	common yarrow	<i>Achillea millefolium</i> L.
conifers:		baneberry	<i>Actaea rubra</i> (Ait.) Willd.
mountain juniper	<i>Juniperus communis</i> L.	bentgrass	<i>Agrostis alba</i> L.
Rocky Mountain juniper	<i>Juniperus scopulorum</i> Sarg.	Sitka alder	<i>Alnus sinuata</i> (Regel) Rydb.
tamarack	<i>Larix occidentalis</i> Nutt.	Geyer pussytoes	<i>Antennaria geyeri</i> Gray
Engelmann spruce	<i>Picea engelmannii</i> Parry	field pussytoes	<i>Antennaria neglecta</i> Greene
lodgepole pine	<i>Pinus contorta</i> Dougl.	common burdock	<i>Arctium minus</i> (Hill) Bernh.
ponderosa pine	<i>Pinus ponderosa</i> Dougl.	klinnikinnick	<i>Arctostaphylos uva-ursi</i> (L.) Spreng.
Douglas fir	<i>Pseudotsuga menziesii</i> (Mirbel) Franco	dragon sagewort	<i>Artemisia dracunculoides</i> L.
		prairie sage	<i>Artemisia ludoviciana</i> Nutt.
		leafy aster	<i>Aster foliaceus</i> Lindl.

*Survey by Thomas J. Watson, Jr.

Common name

arrowleaf balsamroot
 creeping Oregon-grape
 water birch
 nodding beggarticks
 Japanese brome
 Parry's bluebell
 spotted knapweed
 white goosefoot
 pipeleaves
 Douglas' waterhemlock
 Canadian thistle
 bull thistle
 Columbia clematis
 creek dogwood
 black hawthorn
 Sierra fairy-bell
 Canadian waterweed
 western rye-grass
 fireweed

Scientific name

Balsamorhiza sagittata (Pursh) Nutt.
Berberis repens Lindl.
Betula occidentalis Hook.
Bidens cernua L.
Bromus japonicus Thunb.
Campanula parryi Gray
Centaurea maculosa Lam.
Chenopodium album L.
Chimaphila umbellata (L.) Bart.
Cicuta douglasii (DC) Coult. & Rose
Cirsium arvense (L.) Scop.
Cirsium vulgare (Savi) Tenore
Clematis columbiana (Nutt.) T & G.
Cornus stolonifera Michx.
Crataegus douglasii Lindl.
Disporum trachycarpum (Wats.) Benth.
Elaeagnus canadensis Rich.
Elymus glaucus Buckl.
Epilobium angustifolium L.

Common name

Watson's willow-weed
 pale dogtooth-violet
 woods strawberry
 fragrant bedstraw
 sticky purple geranium
 roundleaf alumroot
 water lentil
 twinflower
 bearberry honeysuckle
 silvery lupine
 corn mint
 Hooker's evening-primrose
 common timothy
 nippleseed plantain
 quaking aspen
 black cottonwood
 sticky cinquefoil
 self-heal
 one-sided wintergreen
 Gmelin's buttercup

Scientific name

Epilobium watsonii Barbey
Erythronium grandiflorum Pursh
Fragaria vesca L.
Galium triflorum Michx.
Geranium viscosissimum F. & M.
Heuchera cylindrica Dougl.
Lemna minor L.
Linnaea borealis L.
Lonicera involucrata (Michx.)
Lupinus argenteus Pursh
Mentha arvensis L.
Oenothera hookeri T. & G.
Phleum pratense L.
Plantago major L.
Populus tremuloides Michx.
Populus trichocarpa T. & G.
Potentilla glandulosa Lindl.
Primula vulgaris L.
Pyrola secunda L.
Ranunculus geminatus DC.

<u>Common name</u>	<u>Scientific name</u>
Wood's rose	<i>Rosa woodsii</i> Lindl.
red raspberry	<i>Rubus idaeus</i> L.
thimbleberry	<i>Rubus parviflorus</i> Nutt.
western dock	<i>Rumex occidentalis</i> Wats.
marsh skullcap	<i>Scutellaria galericulata</i> L.
soapberry	<i>Shepherdia canadensis</i> (L.) Nutt.
false spikenard	<i>Smilacina racemosa</i> (L.) Desf.
smooth goldenrod	<i>Solidago gigantea</i> Ait.
shiny-leaf spiraea	<i>Spiraea betulifolia</i> Pall.
Richardson's needlegrass	<i>Stipa richardsonii</i> Link
common snowberry	<i>Symphoricarpos albus</i> (L.) Blake
common dandelion	<i>Taraxacum officinale</i> Weber
western meadowrue	<i>Thalictrum occidentale</i> Gray
stinging nettle	<i>Urtica dioica</i> L.
common mullein	<i>Verbascum thapsus</i> L.
American brooklime	<i>Veronica americana</i> Schwein.
slender cinquefoil	<i>Potentilla gracilis</i> Dougl.

APPENDIX C

WILDLIFE OF THE PROPOSED PLACID LAKE RECREATION AREA

Common name

shrews - R
chipmunks - R
golden-mantled squirrel - R
red squirrel - R
black bear - V
mink - R
coyote - V
bobcat - V
beaver - V
muskrat - R
porcupine - V
snowshoe hare - R
white-tailed deer - V
raccoon - V
striped skunk - R
red fox - V
short-tailed weasel - R

Scientific Name

Sorex spp.
Eutamias spp.
Citellus lateralis
Tamiasciurus hudsonicus
Ursus americanus
Mustela vison
Canis latrans
Lynx rufus
Castor canadensis
Ondatra zibethica
Erethizon dorsatum
Lepus americanus
Odocoileus virginianus
Procyon lotor
Mephitis mephitis
Vulpes fulva
Mustela erminea

Common name

grebes - V
great blue heron - V
Canada goose - V
mallard - V
pintail - V
teal, green-winged - V
teal, blue-winged - V
wood duck - V
merganser - V
bald eagle - V
red-tailed hawk - V
osprey - V
American kestrel - R

Scientific name

Podiceps spp.
Ardea herodias
Branta canadensis
Anas platyrhynchos
Anas acuta
Anas carolinensis
Anas discors
Aix sponsa
Mergus spp.
Haliaeetus leucocoenhalus
Buteo jamaicensis
Pandion haliaetus
Falco sparverius

R - resident; summer or year-long
V - visitor; does not breed on site

Common nameScientific name

chickadees - R

Parus spp.

waxwings - R

Bombusilla spp.

warblers - R

Vermivora spp.

western tanager - R

Piranga ludoviciana

eastern kingbird - R

Tyrannus tyrannus

Steller's jay - R

Cyanocitta stelleri

common raven - V

Corvus corax

Clark's nutcracker - R

Nucifraga columbiana

western painted turtle - R

Chrysemys picta bellii

Rocky Mountain toad - R

Bufo woodhousei woodhousei

red-sided garter snake - R

Thamnophis sirtalis parietalis

ruffed grouse - R

Bonasa umbellus

spruce grouse - V

Canachites canadensis

American coot - V

Fulica americana

killdeer - R

Charadrius vociferus

spotted sandpiper - R

Actitis macularia

Wilson's snipe - V

Capella gallinago

black tern - V

Chlidonias niger

mourning dove - R

Zenaidura macroura

common nighthawk - R

Chordeiles minor

belted kingfisher - R

Megasceryle alcyon

downy woodpecker - R

Dendrocopos pubescens

Thomas J. Jett, Executive

APPENDIX D

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION

MEMBERS OF THE BOARD

STATE OF MONTANA

DNRC
John C. Smith, Director

NOVEMBER 26, 1977

Parks Division
Montana Department of
Fish and Game

Helena, Montana 59601

Dear Sirs:

RECEIVED

NOV 30 1977

REGISTRATION & RECORDS
DIVISION

This letter is in answer to Mr. Tom Basket's letter of inquiry regarding the proposed Colstrip-Hot Springs 500 kV lines.

The Board of Natural Resources and Conservation has conditionally approved a corridor which runs as shown on the enclosed map. The corridor is two miles wide -- one mile on either side of the line drawn on the map. ("Transmission corridor" means a means a linear tract of land, two miles or less in width, where a transmission line may be located.)

Placid Lake lies just northeast of the corridor and the line will probably be visible from the north and east shorelines of the lake. There will be two transmission lines running side by side and occupying a strip of land about 300 feet wide. The two lines will be built somewhere within the two-mile-wide corridor, but not necessarily exactly along the line drawn on the map. The Department of Natural Resources and Conservation is currently doing a "center-line" evaluation to decide exactly where within the corridor the lines will be built. We will recommend a centerline to the Board; the Board then will either approve it or make changes as they see fit. So, you can see that the actual lines could pass along the edge of the lake, if the Board approves a centerline near the northeast edge of the corridor in T16N, R15W. It is highly unlikely that the Department will recommend this to the Board -- we are quite aware of the visual impact of the lines and will probably want the line as far southwest in the corridor as possible.

The State-approved corridor crosses land managed by federal agencies -- in this case the Forest Service -- and these agencies may choose not to grant easements through the state-approved corridor. The federal agencies, headed by Bonneville Power Administration, are in the process of doing a Transmission Environmental Report, to evaluate the relative merits of a number of corridors alternate to the state-approved one. Several of their alternates pass near Missoula and entirely avoid the Placid Lake-Jocko Pass area. The final federal decision will be made by the Secretaries of Interior and Agriculture. If they refuse an easement, then the state (the Department of Natural Resources and Conservation) will have to start again on another corridor evaluation. We are keeping in close touch with the federal study in the hope of avoiding conflict or duplication of effort.

ENERGY PLANNING DIVISION
205 ANTHONY ADMINISTRATION

32 SOUTH EWING, HELENA, MONTANA 59601

FEDERAL AGENCIES AND CONGRESSIONAL REPRESENTATIVES

John Melcher
United States Senate
Washington, D. C. 20510

Lee Metcalf
United States Senate
Washington, D. C. 20510

Max Baucus
House of Representatives
Washington, D. C. 20515

Ron Marlenee
House of Representatives
Washington, D. C. 20515

U. S. Forest Service
Ed Schneegas, Director, Wildlife and Fish Regional Office,
Missoula, Montana, 59801
Arnold Cox, Seeley Lake Ranger District, Loic National Forest,
Seeley Lake, Montana, 59868

Ed Zaiditz, Director, Bureau of Land Management, P. O. Box 30157,
Billings, Montana, 59101

U. S. Fish and Wildlife Service
Burton Rhoads, 316 S. 24th St., Billings, Montana, 59102
Ruth Schraimer, Associate Director, Federal Aid Assistance,
Washington, D. C., 20210

Irving J. Witkind, Geologist, Branch of Central Environmental Geology,
U. S. Geological Survey, Denver, Colorado, 80215

Postmaster, Seeley Lake, Montana, 59868

STATE AND COUNTY AGENCIES

Office of the Governor
Environmental Quality Council
Department of Natural Resources and Conservation
Gary Moon, Administrator, Division of Forestry, 2705 Spurgin Road,
Missoula, Montana, 59801
Water Resources Division
Ray Breuninger, Earth Sciences Coordinator, Energy Planning
Division
Department of Health and Environmental Sciences
James Gelhaus, Air Analyst, Air Quality Bureau
Tom Ellerhoff
Water Quality Bureau
Department of Community Affairs
State Library
Department of State Lands
Montana Historical Society
Ken Korte, State Historic Preservation Officer

H. G. McClerman, Economic Geologist, Montana Bureau of Mines and
Geology, College of Mineral Science and Technology

University of Montana
James A. Core, Instructor, Department of Zoology
Thomas J. Watson, Jr., Assistant Professor, Department of Botany

ORGANIZATIONS

Institute of the Rockies, 620 Evans, Missoula, Montana, 59801
Student Environmental Research Center, University of Montana, Missoula,
Montana, 59801
The Wilderness Society, 8620 East Evans, Denver, Colorado, 80222
Advisory Council on Historic Preservation,
Attention: Louis Wall, Assistant Director, Office of Compliance,
P. O. Box 25085, Denver, Colorado, 80225
Campground Owners Association, c/o Ken Bailey, Bailey's Landing,
Somers, Montana, 59932

ORGANIZATIONS (Continued)

Montana Wilderness Association, 1000 4th Ave. North, Great Falls,
Montana, 59401
Montana Wildlife Federation
Tom Aldrich, 410 Wendworth, Missoula, Montana, 59801
Hugh Zacharia, 308 S. 6th E., Missoula, Montana, 59801
Environmental Information Center, P. O. Box 12, Helena, Montana, 59601
Center for the Public Interest,
Attention: Rick Applegate, P. O. Box 931, Bozeman, Montana, 59715
Montana Guides and Outfitters Association,
Attention: Bob Hart, Box 1159, Livingston, Montana, 59047
The Montana Power Company, Butte, Montana, 59701
Montana Sierra Club,
Attention: Jean Warren, 509 Hill St., Missoula, Montana, 59801
Trout Unlimited, c/o Kevin Glasse, Missoula, Montana, 59801
Burlington Northern Railroad, c/o Don Nettleton, 700 South Avenue East,
Missoula, Montana, 59801
Placid Lake Cabin Owners Association, c/o Tim Garrity, President, Missoula,
Montana, 59801
Seeley Lake Chamber of Commerce, Seeley Lake, Montana, 59868
Champion International, Box 3598, Missoula, Montana, 59801
Ernie Corrick
Bob Kelley
Joseph S. Elmowski, Property Manager

INDIVIDUALS

J. C. Garlington, Attorney, 199 W. Rice, Missoula, Montana, 59801

